



Norman H. Bangarter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

0075

TO: Daron Haddock, Permit Supervisor

FROM: Paul Baker, Reclamation Biologist *PAB*

DATE: November 16, 1992

RE: Skyline Response to Permit Renewal Review, Coastal States Energy and Skyline Coal Companies, Skyline Mines, ACT/007/005, Folder #2, Carbon County, Utah

SUMMARY

Coastal States Energy and Skyline Coal Companies have made their official response to the Division's mining and reclamation plan review that was done at the time of permit renewal. Most of the deficiencies were addressed adequately. Some of the deficiencies that remain were dropped in the administrative review because they were not considered renewal issues. These will be addressed in another memorandum.

This memorandum is organized as follows. Deficiencies from the technical deficiency review are numbered under each regulation as they were in the original review. These deficiencies are underlined. Next is a response and analysis section and another deficiencies section. For convenience, all of the deficiencies that were not dropped and were not adequately addressed are summarized in the recommendations section at the end of the memorandum.

ANALYSIS

R645-301-321. Vegetation Information.

Deficiency:

1. The plan must contain either a summary of vegetative cover, woody species density, productivity, and similarity comparison information for the reference areas and disturbed and proposed disturbed areas or a table to show precisely where this information is located in Appendix A-2.

Response and Analysis:

Skyline's initial response was that this type of a summary would be nice but that it would be very time consuming and is not required in the regulations. A summary is not required in the regulations, but the plan is required to be clear and concise. Some of the vegetation information normally used to establish revegetation standards for success could not be found, so these standards will be established based on information in the plan and on experience and consultation with the Division of Wildlife Resources (DWR) according to R645-301-356.231.

Deficiencies:

None.

Deficiency:

2. The plan must contain results of recent evaluations of the vegetation on the conveyor bench.

Response and Analysis:

In response to this deficiency and the Division Order which vacated violation N92-37-1-1, the plan has been updated to provide a summary of revegetation procedures which are being used on the conveyor bench and of the most recent evaluations. The plan also includes a commitment to provide written evaluation results in future annual reports.

Deficiencies:

None.

R645-301-322.

Wildlife Information.

Deficiency:

1. The application must include raptor nesting information for the entire permit area.

Response and Analysis:

The plan states on page 4-103(a) that the use of the permit and immediately adjacent areas by raptors will be monitored by helicopter survey in early 1993. The

purpose of this survey will be to locate stick nests and, if possible, to identify the occupants. These data will be updated on an annual basis by a spring walk-through of those areas to be subsided in the coming year. These surveys will be conducted in cooperation with and under the supervision of the Division of Wildlife Resources. Any nests identified will be monitored for subsidence-related damage during the nesting season, and damaged nests will be replaced immediately with an artificial structure.

These commitments satisfy the concerns of the deficiency for wildlife information. A permit must be obtained to "take" a raptor nest. Skyline should coordinate all of these activities with DWR or the U. S. Fish and Wildlife Service.

Deficiencies:

None.

Deficiency:

2. Changes to high interest species status of amphibians, reptiles, and mammals with ranges potentially within the permit area as listed in Tables 2.9-1 to 2.9-3 must be updated to the most current information available.

Response and Analysis:

The pages submitted show the required changes for all of the species except red bats and western smooth green snakes. This is a minor problem but should be corrected.

Deficiencies:

1. Changes to the high interest species status of red bats and western smooth green snakes need to be made in Tables 2.9-1 and 2.9-3.

Deficiency:

3. The application must identify goshawks which occur in the area as candidates for threatened or endangered species status.

Response and Analysis:

The plan has been updated to identify goshawks as a proposed threatened or

endangered species.

Deficiencies:

None.

Deficiency:

4. The Applicant must correct statements that fish are only able to migrate to a point just above Whisky Gulch and state that they have upstream migration access in Eccles Creek up to the Forest Service boundary below the Skyline Mine pad.

Response and Analysis:

The plan states that cutthroat trout have historically maintained naturally reproducing populations in Eccles Creek from the mouth of the creek to the National Forest boundary. Recent migrations have been impeded by irrigation developments and beaver dams.

Ken Phippen of DWR stated that he is not aware of irrigation developments that would impede fish movements, and he considers the beaver dams to be temporary barriers. The statement in the plan is adequate, however.

Deficiencies:

None.

Deficiency:

5. References to data from Seton (1927) must be deleted from the plan.

Response and Analysis:

The current submittal does not address this deficiency. The preliminary response stated, "A difference of opinion by an employee of DWR with the work done by Seton is not sufficient reason to delete references to Seton's data. The statement by Seton on the elk's need for space does not appear to be the issue. To delete these references would require an inappropriate editing of a consultant's report."

DWR is considered to have wildlife biological and management expertise in Utah. Editing of the consultant's report would be inappropriate, but the statement quoted in the plan (not the appendix) could be deleted since the plan is not part of the consultant's report. The statement in the plan is not critical to operations or reclamation plans, and the issue is not important enough to be pursued.

Deficiencies:

None.

Deficiency:

6. The plan must include data from recent Wildlife Resources fisheries surveys.

Response and Analysis:

The preliminary response indicated that appropriate summaries would be included in the plan, but the October 5, 1992, submittal did not contain this information. According to Ken Phippen of DWR, fish surveys were conducted at least annually for the first few years after the mine was constructed, but they have been conducted at irregular intervals since then. The most recent information available is from a 1991 study. This information is available from DWR and should be included in the plan.

Deficiencies:

2. The plan must include data from recent Wildlife Resources fisheries surveys.

R645-301-330

Operation Plan

Deficiency:

1. As it is developed, the plan for mitigation of loss of wildlife values due to subsidence in the Burnout Creek area must be incorporated into the plan.

Response:

No response to this deficiency was made or is needed until a mitigation plan is developed.

Deficiencies:

None.

Deficiency:

2. The Applicant must commit to repairing any subsidence cracks which are of a size or nature that would cause injury or death to livestock or wildlife.

Response and Analysis:

The plan includes the required commitment.

Deficiencies:

None.

R645-301-341.100

Revegetation Timetable

Deficiency:

1. The application needs to contain a definite commitment to time topsoil replacement so that revegetation work can proceed as soon as possible afterward and be within a normal period for planting. The amount of time between topsoil placement and planting needs to be stated.

Response and Analysis:

The plan states on page 4-36 that within a suitable time (7-14 days) period prior to seeding, topsoil will be distributed on all areas to be reclaimed. This commitment is adequate to address the deficiency. The concern of the deficiency was that, without a more definite commitment, topsoil might be allowed to settle for several months before being seeded, and some of it could be lost.

Deficiencies:

None.

Deficiency:

2. The application must discuss timing of reclamation activities in relation to elk

calving in the South Fork breakout area.

Response and Analysis:

The plan states on page 4-103(a) that construction of the face up area of the breakout will be done after calving season. Since this statement is in the future tense and construction of the breakout area has already occurred, it is assumed that "construction" in this sentence includes "reclamation". Timing of reclamation to occur after the calving season would also be considered a performance standard under R645-301-358.

Deficiencies:

None.

R645-301-341.210.

Species and Quantities of Seeds and Seedlings.

Deficiency:

1. The plan must contain methods to obtain seed and nursery materials of adapted ecotypes or varieties. If the Applicant is to gather seed from near the mine site, provisions for testing must be included so planting rates can be adhered to.

Response and Analysis:

This deficiency was dropped in the administrative review; however, obtaining seed and nursery materials of adapted ecotypes and varieties will be critical to the success of revegetation operations. It is also considered to be a performance standard for the vegetation to be diverse, effective, permanent, and capable of regeneration and succession.

Deficiencies:

None.

R645-301-341.220.

Planting and Seeding Methods.

Deficiency:

1. Wording in the planting and seeding methods section of the plan must be

revised to clearly define which seeding methods will be used on slopes of which angles and aspects, particularly on south-facing slopes and on other slopes greater than 1.5h:1v. Seed must not be mixed with mulch in hydroseeding operations.

Response and Analysis:

Although this section of the plan is till somewhat difficult to follow, all of the methods shown are acceptable and further elaboration is not needed.

Deficiencies:

None.

Deficiency:

2. The revegetation or soil redistribution section of the application must show methods to be used to roughen the surfaces of slopes in preparation for seeding, particularly those greater than 3h:1v.

Response and Analysis:

As discussed in the analysis section of the original technical deficiency review, the plan already contained the commitments mentioned in this deficiency, but they were in the land use section rather than the reclamation section. The requirement was made in an attempt to consolidate and simplify the plan. Skyline objected to the deficiency because they did not feel that methods were required to be in the plan even though they were already there, and the deficiency was dropped in the administrative review.

Deficiencies:

None.

R645-301-230.

Mulching Techniques.

Deficiency:

1. Mulching methods reflecting best technology currently available, whether determined through operational testing or literature sources, must be shown for all areas.

Response and Analysis:

The revised plan says that slopes of 3h:1v or less will be mulched with straw. Slopes steeper than 3h:1v will be treated with wood fiber mulch, will be anchored by chemical tackifiers or crimping. All mulching, anchoring techniques, and application rates will be determined by using BTCA at the time of reclamation. For the 1992 permit renewal, 2000 pounds of wood fiber plus 140 pounds of conweb tackifier has been used to determine the reclamation bonding calculations.

One of the stipulations on the original permit was that "...reclamation of the mine site will be required to satisfy the standards current at the time of reclamation and will be conducted using the best available current technology." (4.c.). In this submittal, the mulching techniques section of the MRP has been simplified, but the methods have not been changed. The BTCA methods suggested in the technical deficiency review, ie. crimped straw or hay applied at 1.5-2 tons per acre, are supported by several literature sources, but there are a few sources that indicate that 1 ton per acre may be adequate. As experience is gained and more information becomes available, this section of the plan may need to be changed. For the present, the commitment contained in the plan to use the best technology available at the time of final reclamation is acceptable.

The plan no longer shows how the straw will be anchored. This appears to be a typographical error. The last phrase of the statement about wood fiber mulch application appears to be a relict of the straw anchoring commitment that had been in the plan.

Deficiencies:

1. The plan needs to contain a method for anchoring straw mulch.

Deficiency:

2. The land use section of the plan must be altered to reflect the mulching techniques discussed in the revegetation section.

Response and Analysis:

The land use section of the plan has been appropriately altered on page 4-77.

Deficiencies:

None.

R645-301-341.240.

Irrigation and Pest and Disease Control.

Deficiency:

1. Since irrigation is being used for the conveyor bench, the Applicant must show compliance with the Division of Water Rights requirement to file additional paperwork with them to accommodate irrigation uses.

Response and Analysis:

The response includes a letter from the Division of Water Rights that the additional paperwork no longer needs to be filed with them.

Deficiencies:

None.

R645-301-341.300.

Revegetation Feasibility Demonstration.

Deficiencies:

1. The plan must demonstrate revegetation feasibility in those areas where a variance from approximate original contour is proposed.
2. The plan must be revised to show that quantitative data, including percent cover by life form, woody species density, and shrub survival rates, will be gathered for the conveyor bench in 1992 and annually thereafter for at least the next two years (1993-1994) if the reference area standards are not being approached this year. Further data may be needed after that period, and the reference area may also need to be evaluated for some of these parameters for comparison.

Response and Analysis:

The first deficiency was improperly worded in that it was meant to apply to slopes greater than 1.5h:1v and to the conveyor bench and associated cut slopes rather than to all areas with a variance from approximate original contour. Information in the plan demonstrates the difficulty of revegetating these areas, and in my professional opinion, these types of slopes cannot be revegetated to the performance standards using the methods described in the plan or any reasonable reclamation technology of which I am aware.

Steep slopes proposed to be left in the portal area are relatively small. The greatest concern is for the conveyor bench which is proposed to be left intact at final reclamation. These slopes were originally to be regraded to approximate original contour upon final reclamation. This could only occur because the road was to be reclaimed to a gravel road as it was before the mine was built. Since the road is to be retained in its present configuration, it would be impossible to achieve approximate original contour for the conveyor cut slopes. For this reason, attempting to restore approximate original contour is not practical, and achieving the premining vegetation cover is not possible without decreasing the slope, reducing the amount of exposed rock, and adding topsoil.

One alternative to this problem is to change the postmining land use from wildlife and grazing to a type of industrial use, ie. being part of the road cut slope. This would eliminate vegetative production requirements, and the vegetative cover would simply need to be adequate to control erosion. The plant species would still need to meet the other general requirements of R645-301-353, but this should not be difficult. Together with changing the postmining land use and addressing the requirements for a variance from approximate original contour, Skyline should determine if some regrading of the conveyor bench is feasible to reduce the slope over at least part of the area.

A change in the postmining land use would be a significant permit revision, and Skyline would need to address the requirements for an alternative postmining land use. (Any area not meeting approximate original contour requirements should address the requirements for an alternative postmining land use.) If a change such as this is not made, I do not believe that the Division can find that the conveyor bench and associated cut slopes are reclaimable according to the plans in the current mining and reclamation plan.

Deficiencies:

1. The Operator must demonstrate that areas of the conveyor bench and associated cut slopes are reclaimable according to the plans presented in the mining and reclamation plan. As an alternative to the current plan, Skyline may consider changing the postmining land use for this area.

R645-301-342.

Fish and Wildlife.

Deficiency:

1. The Application must include a fish and wildlife habitat enhancement plan for the reclamation and postmining phase of operation or must include a statement explaining why enhancement is not practicable. Consultation with

the Division of Wildlife Resources is recommended.

Response and Analysis:

The preliminary response to the technical deficiency review stated that enhancement measures have already been incorporated in the reclamation plan and will carry over into the postmining phase of the operation. These measures include channel designs, revegetation activities and species selection. DWR was a major contributor to these earlier decisions. The administrative review stated that the Division agrees with the response.

The plan contains some habitat enhancement measures that Skyline has not identified, and further enhancement opportunities may be available. Since the administrative review agreed with the Skyline response, however, this deficiency will be addressed in another memorandum.

Deficiencies:

None.

R645-301-411.

Land Use Environmental Description.

Deficiency:

1. The Applicant must supply a copy of the first 48 pages of the May 8, 1981 AERC archaeological report or provide adequate information on what is contained in the report, and must address the concerns noted in the conclusion of this report as appropriate.

Response and Analysis:

A complete copy of the report was provided. The report shows two archaeological sites near the loadout, one at the mine, and one near Huntington Creek. None of these were believed to be eligible for listing in the National Register of Historic Places. The site at the mine was the old Eccles Canyon Mine, and it was destroyed when the Skyline Mines were constructed. The two near the loadout are described and mapped as being away from the road and in a location where they should not be disturbed. The report states that if they are to be disturbed, they should be excavated. The site near Huntington Creek was not believed to be in any danger from mine development, including subsidence.

Deficiencies:

None.

Deficiency:

2. The plan must identify wildlife habitat as a premining land use.

Response and Analysis:

Page 2-122 has been changed to include wildlife habitat as a premining land use.

Deficiencies:

None.

R645-301-413. Land Use Reclamation Plan.

Deficiency:

1. The Application must contain comments on the proposed postmining land use for the loadout area.

Response and Analysis:

Table 4.12-1 on page 4-75 has been changed to indicate that the postmining land uses for the loadout area will be wildlife habitat and grazing, and the footnote states that the permittee is the landowner of this site and is not in the recreation or livestock business and elects not to reestablish the picnic and livestock facilities. Drawing 1.6-1 has been updated to show the ownership change for the loadout.

The change in land ownership is a change to the plan outside of the scope of the Division Order that should have been identified in accordance with R645-303-223.

R645-301-114.100 requires that the application contain a description of the documents upon which the applicant bases their legal right to enter and begin coal mining and reclamation operations in the permit area and will state whether that right is the subject of pending litigation. The description is also required to identify the documents by type and date of execution, identify the specific lands to which the

document applies, and explain the legal rights claimed by the applicant. Although Drawing 1.6-1 and Table 4.12-1 show the change of ownership for the loadout area, the plan does not identify the documents by type and date of execution or identify the specific lands to which the document applies other than on the map.

It is felt that the change in land use from livestock corrals and a picnic area to wildlife habitat and grazing is desirable. Although it is a change compared to the use of the land immediately preceding mining, wildlife and grazing use are premining land uses. Therefore, this change should not be considered an alternative postmining land use that would require a significant revision to the plan. The change would serve to enhance wildlife habitat and should be approved.

Deficiencies:

1. The right of entry information for the land at the loadout must be updated in the plan in accordance with R645-301-114.100.

Deficiency:

2. The application must include either a copy of the lease agreement for the conveyor corridor land, excerpts from this agreement, or other comment from this land owner on the postmining land use.

Response and Analysis:

A copy of the lease agreement has been submitted.

It was anticipated that the lease agreement would provide a form of comment on the postmining land use. It basically states that the land containing the conveyor corridor and some other facilities may be altered by the Lessee (Skyline) but that these lands must be reclaimed according to Federal, State, and local laws and regulations. Where the postmining land use is presently proposed to remain wildlife and grazing, this lease agreement should be adequate. As discussed under R645-301-341.300 Revegetation Feasibility Demonstration and in another memorandum which covers the topic of land owner consent to a variance from approximate original contour, however, this lease does not provide adequate comment to change the land use or for receiving approval for a variance from approximate original contour.

Although the submittal included a copy of the lease agreement as required, the agreement is marked "confidential", and landowner comments on the postmining land use cannot be considered confidential. Skyline may wish to quote from appropriate portions

of the agreement. Additionally, it is not known where the lease agreement should be placed in the plan. Reference to the agreement could not be located in the plan.

Deficiencies:

2. If the lease agreement between Coastal States Energy and Nick and Koula Marakis and Helen Lumbi is to constitute comments on the postmining land use, the agreement cannot be considered confidential and Skyline must indicate how this agreement is to be inserted into the plan, including reference to it in the text of the plan.

Deficiency:

3. The cross reference must show the locations of surface owner or manager comments concerning the postmining land use for all areas.

Response and Analysis:

The cross-reference states under R645-301-412.200 that the MRP location for land owner or surface manager comments is V3 4.12.6. Section 4.12.6 contains land owner comments for the waste rock disposal site only. It does not contain comments from the Forest Service or from Nick and Koula Marakis and Helen Lumbi. Comments from the Forest Service in the form of excerpts from the management plan are included elsewhere in the plan, and the lease agreement discussed above is intended to serve as comments from the Marakis's.

Deficiencies:

3. The cross reference must show the locations of surface owner or manager comments concerning the postmining land use for all areas.

Deficiencies:

4. The plan must adequately address the requirements for an alternative postmining land use in R645-301-413.300.
5. Skyline must show evidence of consultation with appropriate land use agencies to determine that the potential uses of areas not to be restored to approximate original contour will constitute equal or better economic or public uses.

6. The application must include written requests from surface landowners for a variance from approximate original contour so as to render the land, after reclamation, suitable for the postmining land use.
7. The application must show that the watershed of lands within the proposed permit and adjacent areas will be improved by the coal mining and reclamation operations when compared with its condition either before mining or if approximate original contour was restored.

Response and Analysis:

These deficiencies were all dropped in the administrative review, apparently because it was felt that they were not renewal issues. They will be addressed in a separate memorandum.

Deficiencies:

None.

Deficiency:

8. Map 4.7.2-1 either needs to be included in the plan if it is needed or reference to it must be deleted.

Response and Analysis:

Reference to this map has been deleted from page 4-79.

Deficiencies:

None.

RECOMMENDATIONS

Portions of the revised plan dealing with deficiencies that were not dropped in the administrative review or that are not listed below should be approved. This includes the change in postmining land use for the loadout area. Deficiencies that were dropped in the administrative review will be addressed elsewhere. Other remaining deficiencies are:

R645-301-322.

Wildlife Information.

1. Changes to the high interest species status of red bats and western smooth green snakes needs to be made in Tables 2.9-1 and 2.9-3.
2. The plan must include data from recent Wildlife Resources fisheries surveys.

R645-301-230. Mulching Techniques.

1. The plan needs to contain a method for anchoring straw mulch.

R645-301-341.300. Revegetation Feasibility Demonstration.

1. The Operator must demonstrate that areas of the conveyor bench and associated cut slopes are reclaimable according to the plans presented in the mining and reclamation plan. As an alternative, Skyline may consider changing the postmining land use for this area.

R645-301-413. Land Use Reclamation Plan.

1. The right of entry information for the land at the loadout must be updated in the plan in accordance with R645-301-114.100.
2. If the lease agreement between Coastal States Energy and Nick and Koula Marakis and Helen Lumbi is to constitute comments on the postmining land use, the agreement cannot be considered confidential and Skyline needs to indicate how this agreement is to be inserted into the plan, including reference to it in the text of the plan.
3. The cross reference must show the locations of surface owner or manager comments concerning the postmining land use for all areas.